

Career and Technical Education  
*Promising Practices Initiative*

Sponsored by the Maine Department of Education,  
Division of Career and Technical Education,  
and the Maine Association of Career and Technical Educators

*Featured Promising Practice:*  
***Literacy Teacher  
Professional Development***

Maine CTE Center  
working with this *Promising Practice*:  
**Mid-Maine Technical Center**

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*Promising Practices* descriptions and mini-case studies developed by  
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## PROMISING PRACTICE: *SCHOOL-WIDE LITERACY TEACHER PROFESSIONAL DEVELOPMENT*

### Description

All CTE teachers at the same center participate in one or more forms of teacher professional development to build their capacity to improve students' reading, writing, speaking/presenting, and thinking skills within the context of their CTE program area. CTE directors support teachers to learn and gain confidence in using literacy support strategies as part of classroom instruction.

### Why Is This a *Promising Practice*?

The teacher is the single most important factor in determining student performance (Alliance for Excellent Education, 2005).<sup>1</sup> School leaders face the challenge of motivating, guiding, and supporting teachers to reach higher levels of performance. Good teacher professional development is essential to meeting this challenge.

The NSDC standards (2001)<sup>2</sup> stress that quality teacher professional development should:

- Be focused on student learning and achievement.
- Be research-based with relevant content-area examples and applications, and opportunities to practice.
- Support the development of a professional learning community.
- Include a variety of formats designed to meet adult learning needs and help teachers meet school and district goals.
- Be adequately supported by school leaders and resources.
- Use multiple forms of data to guide and monitor improvement.
- Occur over time as part of a systemic plan for educational improvement.

Effective literacy professional development occurs over time and includes an introduction to literacy support strategies, modeling, practice, content-area examples, and planning for and discussion of applications in the classroom (Putnam and Borko, 2000).<sup>3</sup> With adequate high quality professional development, CTE teachers can become adept at selecting strategies to use based on student needs; the demands of the curriculum; program competencies; or certification requirements. The impact of teacher professional development is likely to be greater if teachers participate in teams, cohorts, or pairs. Wide-spread teacher professional development contributes to the emergence of a professional learning community focused on literacy improvement (Irvin, Meltzer, & Dukes, in press).<sup>4</sup>

### What Literacy Strategies Do CTE Teachers Need to Know?

CTE teachers need a toolkit of strategies that helps students to do the types of *reading*, *writing*, *speaking/presenting*, and *thinking* needed to be successful in their career choices:

- Strategies to improve reading skills so students can be independent learners (e.g., reading technical manuals and textbooks well enough to find information and apply the concepts;

<sup>1</sup>Alliance for Excellent Education. (2005). *Tapping the potential: Retaining and developing high quality new teachers*. Accessed July 26, 2006 at <http://www.all4ed.org/publications/TappingThePotential/TappingThePotential.pdf>

<sup>2</sup>The National Staff Development Council Standards can be found at <http://www.nsdc.org/standards/index.cfm>.

<sup>3</sup>Putnam, R. T., & Borko, H. (2000). What do new views of knowledge and thinking have to say about research on teacher learning? *Educational Researcher*, Vol. 29, No. 1, pp. 4-15. Accessed July 26, 2006 at <http://edtech.connect.msu.edu/aera/pubs/er/arts/29-01/putnam01.htm>

<sup>4</sup>Irvin, J., Meltzer, J., & Dukes, M. (in press). *A leadership model for improving adolescent literacy*. Alexandria, VA: Association of Supervision and Curriculum Development.

reading trade journals and articles on the Internet to keep up in their field; reading and applying information in documents pertinent to safety, procedures, and regulations).

- *Strategies to gain comfort and skill when communicating verbally and in writing* (e.g., writing medical records, resumes, customer service records, work orders, descriptions of services, proposals for work, letters; types of verbal communication might include team communication, appropriate and precise use of technical vocabulary, customer service, public presentations, mentoring of others, and demonstrations).
- *Strategies to develop analytical, reflective, and problem-solving skills* (e.g., diagnostic skills and protocols are required across most CTE fields; these and other critical thinking skills can be developed through hands-on instruction *in conjunction* with content-area reading and to deepen and broaden conceptual understandings and improve the quality of work).

### **Learning the Literacy Support Strategies**

For CTE teachers, literacy support strategies must first be learned and then adapted to the subject matter at hand. Teachers—and then students—need to understand the purpose of each strategy and effective ways to use each with reading and writing. Some teachers need peer coaching, repeated exposure to the strategies, and/or opportunities to see content-specific examples. Others may be able to see how a general strategy can be productively adapted and applied to their program area.

### **Supporting Teachers to Use the Strategies**

Supporting teachers as they learn new strategies for literacy teaching and learning is the responsibility of the CTE director. Directors can:

- Provide release time for professional development.
- Structure time for teachers to work together and provide opportunities for peer support.
- Communicate that literacy development is a focus at staff meetings, through newsletters or the school Web site, and through email.
- Clarify the expectation that teachers implement the strategies in their classrooms; otherwise, some students will practice reading, writing, speaking, and thinking and others will not.
- Support the development of a professional learning community focused on literacy improvement.

CTE directors who know the literacy strategies can recognize if and how they are being used. They can connect the use of the strategies to the school's vision of teaching and learning and preparing students for the 21<sup>st</sup> century, stressing that this preparation is a collective responsibility.

### **What Does It Look Like in Maine?**

One Maine CTE center embarked on a staff-wide literacy professional development effort during the 2005–06 school year. The mini-case study describes the initial progress that has been made and plans for the 2006–07 school year. The mini-case study is followed by a description of professional development options and formats.

## Promising Practice in Action: *Literacy Teacher Professional Development*

Mid-Maine Technical Center (MMTC)<sup>5</sup>

Waterville, ME

Mark Powers, Director

- **Location:** Independent building adjacent to Waterville High School
- **Student population:** 400
- **Number of sending schools/districts:** 5
- ▶ **Program focus:** Provide CTE teachers with adequate professional development so they can integrate literacy development into all MMTC program areas.

MMTC is NEASC accredited, offering 26 career and technical courses in its well-equipped 14 lab areas. Each technical program at MMTC has achieved National Program Certification for National Skills Standards or using State Licensing Standards. The director feels good about the numbers—comparatively a high percentage of students (about two-thirds) passed national or state certification tests, went on to post-secondary programs, and scored well on the school's assessment, the College Board's Accuplacer Exam.

Mark Powers and his staff recognized that meeting the 21<sup>st</sup> century demands of the career paths for which these students are preparing requires high-level reading, writing, and thinking skills. Therefore, they aimed to provide more “value-added related academics” in those areas. MMTC teachers, with the leadership and support of the director, began to explore ways to enhance teachers' capacities to improve students' reading and writing skills *as part of* CTE classes. Below is a summary of what MMTC has done and how they plan to build on this during the 2006–07 school year.

***Multiple opportunities and expectations to attend literacy professional development during 2006.*** All MMTC staff, including administrators, participated in at least one workshop focused on literacy support strategies between January and April 2006. Many attended several. The director publicized literacy opportunities offered throughout the state and encouraged teachers to attend. All of MMTC teachers participated in one or more half-day workshops focused on content-area literacy strategies, including vocabulary development, note taking, reading comprehension, writing, or motivating students to read their textbooks offered through one of the sending school districts. Sixteen of the 20 MMTC instructional staff, including educational technicians, attended the summer literacy strategies sessions. Several of the summer workshops were facilitated by CTE teacher literacy mentors from throughout the state, including four MMTC teachers (see below).

***Training of onsite mentors during the spring of 2006.*** The director submitted nominations for four CTE literacy mentors in the fields of auto repair, precision machining, computer technology, and culinary arts to be trained as mentors through the state-wide CTE literacy mentor initiative. During the spring of 2006, these teachers attended four full-day workshops and were responsible for trying out strategies in their classroom and developing content-specific applications of the strategies to support student learning in their program area. More training was planned for the fall of 2006.

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<sup>5</sup> This mini-case study is based on multiple in-person meetings with Mid-Maine TECH staff, facilitation of workshop sessions attended by MMTC staff, document review, and two onsite visits between February and June of 2006.

### **Building on Existing Structures**

MMTC had several structures in place, which helped the literacy professional development initiative to “take root” and become incorporated into the culture of the school. Every CTE program area requires students to complete a career portfolio that includes a resume, letter of application, and work samples. The handbook contains curriculum objectives for each program; many have literacy components. Student Daily Logs are required in each program area.

MMTC program areas are organized into four tech teams: construction, service, technology, and mechanical. In the CTE Literacy Plan for 2006–07, an increased focus on literacy will be infused into all of these. Two examples:

1. There will be a renewed focus on daily logs—the purpose of the logs will be to get students to reflect on what was learned that day in ways that require making connections; analyzing; comparing and contrasting; and so on. This could be done through exit slips or quick writes using Bloom’s prompts.
2. There will be an addition to the Career Portfolio—each quarter students will reflect upon a problem they came up against during their lab time and describe how they addressed it. Problems/solutions can be presented through pictures with captions, use of a PowerPoint presentation, or in writing. One of the four will be a presentation to the class.

### **Use of Data**

MMTC was concerned that the data it had on students’ literacy skills was inadequate to plan for student needs and track the progress of the literacy initiative. MMTC director, Mark Powers, and some teachers initiated a regional dialogue about reading assessment with the region’s sending districts. As a result, MMTC will be using the Scholastic Reading Inventory to assess reading comprehension for all students that attend the technical school. Therefore, MMTC can look forward to getting a lexile score for every incoming student. This will enable MMTC teachers to meet with students and talk about using the more motivating contexts of the CTE center to work on their reading and writing skills if necessary. Computerized weekly student reports already alert students to missing work, so teachers are used to tracking student progress and providing feedback. MMTC has been administering and gathering data from student performance on certification tests and the Accuplacer Test for several years. As they have done in the past, MMTC staff will analyze 2005–06 student performance data and identify strategies to improve student achievement. Teachers will receive these recommendations at the beginning of the 2006–07 school year.

### **Clear Expectations**

During the 2005–06 school year, there were expectations to attend professional development and try out some of the literacy support strategies. Next year, the expectations outlined in the CTE Literacy Plan for 2006–07 include:

- A focus on technical terminology in each program area. Each area will identify approximately 200 key terms and will actively work with 7–10 of those terms using vocabulary development strategies at least once per week. Three primary strategies may be used—triple-entry vocabulary journal, knowledge rating guide, and interactive word walls.
- A minimum of 30 opportunities throughout the year will be provided by each program area to read chapters or articles and work with them actively using the literacy support strategies introduced during professional development sessions. Teachers can obtain assistance finding articles and/or co-teaching. Two educational technicians on staff, Debbie Duncan

and Ed Maroon, were asked to attend multiple professional development opportunities during the 2005–06 school year so they could provide on-site support to teachers.

### **Providing Support and Getting Staff Buy-in**

The CTE Literacy Plan for 2006–07 lists a number of support measures:

- Develop a common language and strategies about literacy—16 staff members attended the CTE Summer Literacy Workshop.
- Assess all students to obtain reading lexile scores.
- Debbie and Ed will be available to assist/co-teach literacy strategies with instructors.
- At faculty meetings throughout the year, literacy strategies will be shared. Debbie and Ed will prepare follow-up on these strategies to share what staff is doing and keep the focus on literacy through emails or a newsletter.
- The literacy initiatives will be reinforced during teacher in-service days (on the Instructor and Ed Tech In-service Plan, time for CTE literacy is noted as a focus for October 5 and January 22).
- Teachers will be able to visit other centers that are using the literacy strategies.

The 2006–07 CTE Literacy Plan was collaboratively developed by the literacy team consisting of MMTC administrators, literacy mentors, and the two educational technicians who will be providing support. These staff members presented the plan to colleagues at the end of the year retreat. Ongoing support and encouragement to attend professional development opportunities has also helped as teachers have come back with practical strategies they can readily use in the classroom. Lastly, the goals and focus of the literacy initiative is connected to program area goals and concerns which helps staff see that this is not an “extra,” but a part of classroom instruction.

### **Evidence of Literacy Integration in the CTE Classroom**

There was evidence that teachers who participated in professional development have changed their practice. During a casual visit to MMTC on one day in May, the following was observed, despite the teachers’ protestations that the students were not really “motivated” because it was the end of the year and that next year, with expectations starting from “day one,” it will be “a lot easier to get students on board with this literacy stuff.”

- An article, *Don’t Be a Copycat*, with an accompanying anticipation guide, was used in the graphic communications class. The teacher said students read an article about once a week. Regarding the anticipation guide: “Kids had seen it before at the sending schools. I wasn’t sure if the kids would know how to fill it out, but they had no problem.”
- In the construction classroom, an entire rack at the front of the room was filled with issues of *American Woodworking*, *Woodworkers Journal*, *Wood Projects*, and other trade journals. Outside the room, a sign said: “Building minds and bodies so they will build the houses of the future.”
- Two teachers reported they had done literacy strategies that morning in the classroom. The precision machining and computer technology teachers, both CTE literacy mentors, described two different literacy support strategies that assist students to read more thoughtfully and respond to what they read. One teacher said in mock dismay: “You missed my Think-Pair-Share! It went surprisingly well.”
- The culinary arts teacher, another mentor, talked about a strategy sequence students had recently completed that included watching a video, reading an article, responding to a problematic situation, presenting their solutions, and then reading the textbook chapter in pairs. The topic was salad preparation and E.coli.

Other indications include the following:

- All four MMTC mentors piloted and wrote descriptions of how they used a set of literacy support strategies for the upcoming summer institute.
- MMTC teachers who came to more than one workshop at one of the sending high schools provided clear examples of how they had used a semantic feature analysis, a word sort, and other strategies to build vocabulary, enhance content understanding, and improve reading comprehension.
- MMTC educational technicians commented at the end-of-the-year meeting how they had observed more and more use of strategies “even in the classrooms of some of the teachers who are not mentors.”

### **Next Steps**

- Stay the course. Use the CTE Literacy Plan for 2006–07 to guide action during the school year. Revisit and revise at the end of the year as necessary.
- Be explicit with students, sending schools, and parents about the importance of this literacy initiative. Outline what each can do to help.
- Continue to work with sending schools to outline what supports are needed in 9<sup>th</sup> and 10<sup>th</sup> grade to best prepare students for CTE programs.
- Obtain technical assistance in three areas: complete an evaluation of the literacy demands of the certification tests; one-page lists of ideas of how to meet the expectations of the CTE Literacy Plan; and meetings with the literacy team once per semester to assess progress, troubleshoot, and problem-solve.
- Continue to offer professional development opportunities for new teachers and teachers just getting “on board.”
- Create a professional library for teachers to use.

*For more information, contact Mark Powers, Director, or any of the MMTC Literacy Mentors: Reggie Grenier (Computer Technology), Becky Johnston (Automotive Technology), Mark Rancourt (Precision Machining), or Bill Robertson (Culinary Arts).*

## **Options and Formats for CTE Literacy Professional Development**

CTE directors have a variety of options to assist CTE teachers to improve their capacity to advance literacy development within the context of their CTE programs. The following approaches have all been successfully used and are recommended. Using a combination of two or more will enhance teacher success and shorten the time period before improvements in student performance can be noted.

The goal is to have teachers use literacy support strategies during at least 50% of their classroom sessions. This will ensure students receive adequate practice and instruction to develop skills. Use of literacy support strategies should not be an add-on or extra, but always planned to enhance understanding and application of content.

### **Onsite or Offsite Workshops, Institutes, or Conferences**

- Make sure workshops are applicable to high school students, provide relevant examples or time to apply strategies to CTE contexts, and are not just “one shot deals.”
- One or two days of training are simply not enough to make a difference in classroom practice. Workshops tend to be most effective if offered as a series.
- If only some staff attend a workshop or conference, make sure there is time to report back to the rest of the staff.

### **Train-the-Trainer or Peer Coaching Models**

- Certain teachers should get more training and then serve as peer coaches or mentors for colleagues.
- By working with the strategies and gaining a repertoire of personal experience with how to use and adapt them, mentors can provide examples of how they used and adapted strategies to colleagues.
- Peer coaching models use a protocol where teachers observe and support one another with the implementation of new strategies. Teachers co-plan, observe, and/or debrief with one another several times a year.

### **Use of an Onsite Literacy Coach**

- This person might be on staff or possibly an outside consultant who provides a combination of workshops and working with teachers in their classrooms.
- Typically coaches work with teachers to:
  - ▶ Co-plan how to increase the literacy development in a unit or lesson.
  - ▶ Model use of a strategy in the classroom.
  - ▶ Co-teach the lesson or unit with the teacher.
  - ▶ Observe and provide feedback to the teacher when he or she tries out a literacy support strategy in the classroom.

### **Study Groups, Critical Friends Groups, Professional Learning Communities**

- In-house ways to support further improvement of teaching practice through approaches such as:
  - ▶ Reading and discussing articles or books on literacy.
  - ▶ Collaboratively scoring and examining student work to determine instructional needs.
  - ▶ Sharing with one another how teachers are using the strategies.
  - ▶ Reviewing together assessment results to determine where extra focus on literacy is needed.



### **Keeping the Literacy Focus Front and Center**

- Communicate a continued focus on the literacy improvement goal when talking and writing to parents, students, and teachers.
- Decide on a set of school-wide strategies that everyone uses; this helps to provide a common language and focus.
- Devote 10–15 minutes at each staff meeting to the description and sharing of the use of a literacy strategy.
- Report back to teachers the results of literacy walkthroughs.
- Assemble successful strategy lessons in a collaborative notebook or on a Web page.
- Identify what literacy habits and skills will be focused on across the school and in each CTE program area.

### **Professional Learning Communities**

Teacher professional development needs to be structured to support the emergence of a professional learning community focused on literacy improvement. Such a learning community has:

- A common literacy vision.
- Common strategies.
- Common agreements about how and when strategies will be used.
- A collective process for supporting, reviewing, and revising the work.

The use of specific strategies and types of reading, writing, and speaking/presenting that teachers use are matched to student needs, the literacy demands of the curriculum, and/or the requirements of the assessment (certification test, state test).

### **Leadership Support**

Many CTE directors can also benefit from professional development to enhance their ability to support the initiative. Topics leaders may wish to learn about include:

- An overview of the literacy support strategies so the director knows what to look for in classrooms.
- How to do a literacy walkthrough.
- Effective ways to use data to support literacy development.
- Program-wide agreements and structures that make a difference.
- Getting reluctant teachers on board.
- Identifying the literacy demands of certification tests.
- How to coach teachers.
- How to connect program competencies and industry standards to literacy development.